

## Title (en)

ALUMINUM ALLOY WIRE, ALUMINUM ALLOY STRANDED WIRE, COVERED ELECTRIC WIRE, AND WIRE HARNESS

## Title (de)

ALUMINIUMLEGIERUNGSDRAHT, ALUMINIUMLEGIERUNGSLITZENDRAHT, UMMANTELTHER ELEKTRISCHER DRAHT UND KABELBAUM

## Title (fr)

FIL EN ALLIAGE D'ALUMINIUM, FIL TORONNÉ EN ALLIAGE D'ALUMINIUM, FIL ÉLECTRIQUE GAINÉ, ET FAISCEAU ÉLECTRIQUE

## Publication

**EP 3486339 A1 20190522 (EN)**

## Application

**EP 17827339 A 20170619**

## Priority

- JP 2016138088 A 20160713
- JP 2017022495 W 20170619

## Abstract (en)

The present invention provides an aluminum alloy wire or the like which can secure a high conductivity and a moderately low yield strength, and realize both a high elongation and a moderate tensile strength. An aluminum alloy wire of the present invention contains 0.10 to 1.00% by mass of Mg, 0.10 to 1.20% by mass of Si, 0.10 to 1.40% by mass of Fe, 0 to 0.10% by mass of Ti, 0 to 0.030% by mass of B, 0 to 1.00% by mass of Cu, 0 to 1.00% by mass of Mn, 0 to 1.00% by mass of Cr, 0 to 0.50% by mass of Zr, and 0 to 0.50% by mass of Ni, the balance being Al and 0.30% by mass or less of impurities. Coarse crystal grains are present in a vertical cross-sectional structure of the wire taken in a lengthwise direction of the wire. The greatest grain size of the coarse crystal grains as measured in the lengthwise direction of the wire is equal to or greater than a diameter of the wire. A proportion of an area of the coarse crystal grains to the total of the areas of all the crystal grains within a range of the vertical cross-sectional structure in which the vertical cross-sectional structure is measured, is 50% or more. Elongation of the wire is 10% or more.

## IPC 8 full level

**C22C 21/00** (2006.01); **C22C 21/02** (2006.01); **C22C 21/06** (2006.01); **C22F 1/00** (2006.01); **C22F 1/05** (2006.01); **C22F 1/08** (2006.01); **H01B 1/02** (2006.01); **H01B 5/02** (2006.01); **H01B 5/08** (2006.01); **H01B 7/00** (2006.01)

## CPC (source: EP KR US)

**B21C 1/02** (2013.01 - US); **B22D 11/003** (2013.01 - EP US); **C22C 21/00** (2013.01 - EP US); **C22C 21/02** (2013.01 - EP KR US); **C22C 21/06** (2013.01 - EP KR US); **C22F 1/04** (2013.01 - EP US); **C22F 1/05** (2013.01 - KR); **C22F 1/08** (2013.01 - KR); **H01B 1/02** (2013.01 - EP KR US); **H01B 1/023** (2013.01 - EP US); **H01B 5/02** (2013.01 - EP KR US); **H01B 5/08** (2013.01 - EP KR US); **H01B 7/00** (2013.01 - EP KR US); **C22F 1/00** (2013.01 - EP US); **C22F 1/05** (2013.01 - EP US); **C22F 1/08** (2013.01 - EP US); **H01R 4/18** (2013.01 - US)

## Cited by

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